REMARKS

The following remarks are submitted to be fully responsive to the official action dated April 28, 2010. This response is thus timely submitted within the three-month shortened statutory period for response. Should any fees be required, the Commissioner is authorized to charge Medtronic, Inc. Deposit Account No. 01-2525 and thereafter notify us of the same. Reconsideration of all outstanding grounds of the rejection and allowance of the subject application are believed in order and respectfully requested.

In the official action, claims 1, 3, 7, 8, 10, and 13 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,947,953 (Ash et al.), in view of U.S. Patent No. 6,246,914 (de la Rama et al.). The rejection is traversed for at least the reasons set forth below.

The Examiner asserts that the Ash et al. reference fails to disclose the claimed aperture shape. Applicants agree. The Examiner thus proposes that the Ash et al. reference can be modified based on the disclosure of the de la Rama et al. reference. Specifically, the Examiner asserts:

> Since Ash contemplates a plurality of aperture shapes and since de la Rama clearly discloses the suitability of apertures shaped in an eye-like fashion to ensure that fluid may still flow through the apertures even when the catheter on which the apertures are formed buckles, it would have been obvious for one of ordinary skill in the art at the time of the invention to seek the aperture shape of de la Rama for use in the cannula of Ash because that combination would yield the claimed invention with a reasonable expectation of success.

Applicants respectfully submit that the Examiner's position is inconsistent with the disclosure of the Ash et al. and the de la Rama et al. references and is unsupportable. First, regarding the Examiner's assertion that the Ash et al. reference contemplates a plurality of aperture shapes, the Examiner has not identified any portion of the Ash et al. reference that supports such assertion. Indeed, as indicated in Applicant's previous response, the only disclosure related to the shape of any fluid carrying structure in the Ash et al. reference is directed to the cross-sectional shape of the catheter assembly itself. There is no disclosure in the Ash et al. reference of alternative shapes for the apertures of the catheter of the Ash et al. reference. If the Examiner maintains this assertion,

Applicants respectfully request that the Examiner identify the specific portion of the Ash et al. reference relied on to support this assertion.

Moreover, one of ordinary skill in the art would not modify the apertures of the catheter of the Ash et al. reference because the Ash et al. reference clearly teaches a specific arrangement for the apertures to provide specific functionality in addition to the capability to provide fluid flow from outside the catheter to the lumen of the catheter. Specifically, the Ash et al. reference teaches that providing the apertures helically and circumferentially around the distal end of a catheter prevents sucking of the catheter against the blood vessel and additionally minimizes vibratory movement at the distal end of the catheter. See column 11, lines 28-39 of the Ash et al. reference, for example. From this, one of ordinary skill in the art at the time of the invention would recognize that the circular structure and placement of the apertures of the catheter of the Ash et al. reference is an important aspect of such catheter to achieve the recited and desired function. There is nothing in the Ash et al. reference or the knowledge of one of ordinary skill in the art at the time of the invention that would cause one of ordinary skill in the art at the time of the invention to depart from the circular apertures and their associated placement, as any such departure could undesirably alter the desired and important functionality of the apertures.

Accordingly, at least because the Ash et al. reference is silent regarding alternative aperture shapes and because the Ash et al. reference provides a compelling reason why one of ordinary skill in the art at the time of the invention would avoid modifying the apertures of the catheter of the Ash et al. reference, the Examiner's conclusion that the Ash et al. reference contemplates a plurality of aperture shapes is inconsistent with the disclosure of the Ash et al. reference and such a conclusion is thus unsupportable. It therefore follows that because the Ash et al. reference does not contemplate alternative aperture shapes, the Ash et al. reference cannot be modified in view of the de la Rama et al. reference as proposed by the Examiner.

Further, as noted above, the Examiner asserts "de la Rama clearly discloses the suitability of apertures shaped in an eye-like fashion to ensure that fluid may still flow through the apertures even when the catheter on which the apertures are formed buckles" (emphasis added). The Examiner's assertion as to the functionality of the slits of the

catheter of the de la Rama reference is inconsistent with the disclosure of the de la Rama et al. reference and is therefore traversed. The catheter described in the de la Rama et al. reference has absolutely nothing to do with providing fluid flow through a lumen of a catheter such as for delivering or removing fluids. Indeed, the catheter disclosed in the de la Rama et al. reference is fundamentally distinct from a catheter for delivering or removing fluids. Specifically, the catheter disclosed in the de la Rama et al. reference is a high torque catheter for delivering an electrode and associated electrical lead to the heart of a patient. The catheter is required to have the capability of handling high torque in use and is thus made from a suitable rigid material. A drawback related to such rigid materials that can handle high torque is that these materials are typically inflexible. Flexibility, however, is also desired for the catheter of the de la Rama et al. reference. The catheter of the de la Rama et al. reference therefore includes slits that are formed as cuts in the body of the catheter. Importantly, the slits are formed in a way that does not remove any material to create an opening. See Figure 2 of the de la Rama et al. reference. The slits can open to allow the catheter to flex but remain closed to maintain the integrity of the catheter for handling the associated torque applied during use. The intended function of the slits of the catheter of the de la Rama et al. reference thus relates to the maneuverability of the catheter in use. The slits of the catheter of the de la Rama et al. reference are not in any way intended to provide fluid flow through the catheter as asserted by the Examiner. Accordingly, because the de la Rama et al. reference is completely silent regarding using the slits to provide fluid flow through the slits and clearly does not teach, disclose, or otherwise suggest any suitability or desire for the slits to provide fluid flow through the slits, the Examiner's assertion regarding the functionality of the slits is unsupportable. For at least this further reason, withdrawal of the obviousness rejection of claims 1, 3, 7, 8, 10, and 13 is believed proper and is respectfully requested.

As a further argument against the Examiner's asserted functionality of the slits of the de la Rama et al. reference, the only aspect of the disclosure of the de la Rama et al. reference that could be characterized as having anything to do with fluid flow through the slits clearly teaches that the flow of fluid through the slits (to reach the electrical lead carrying lumen) should be prevented. The internal lumen of the catheter of the de la

Rama et al. reference functions to carry the electrical lead of the electrode of the catheter. One of ordinary skill in the art at the time of the invention would clearly recognize the desire to shield the electrical lead from being exposed to fluid. The de la Rama et al. reference recognizes this issue and specifically teaches that it is desirable to embed the slit tubular portion of the catheter within an elastic membrane to separate the interior of the lumen of the slit tubular portion carrying the electrical lead from the fluid environment surrounding the slit tubular portion during use. See Column 3, lines 51-54.

In the Response to Arguments section of the Official Action, the Examiner asserts that the shape of the slits of the catheter shown in Figure 3 of the de la Rama et al. reference are nearly identical to the openings of the catheter shown in Figures 4 and 5 of the present invention. The Examiner's assertion is traversed. Broadly characterizing the slits of the de la Rama et al. reference as eye-shaped openings that can be substituted for the apertures of the Ash et al. reference is inconsistent with the disclosure of the de la Rama et al. reference. The slits of the catheter of the de la Rama et al. reference are fundamentally both structurally and functionally different from the openings of the catheter of the present invention and the apertures of the catheter of the Ash et al. reference. Specifically, in an unflexed configuration, as shown in Figure 2 of the de la Rama reference, the slits of the catheter of the de la Rama et al. reference are closed and incapable of providing fluid flow to the lumen of the catheter. In contrast, the openings of the catheter of the present invention are capable of providing fluid flow to the lumen of the catheter regardless of whether the catheter is in a flexed or unflexed configuration. Accordingly, broadly characterizing the slits of the catheter of the de la Rama et al. reference as eye-shaped is not supportable by the disclosure of the de la Rama et al. reference and such slits must be characterized consistently with the disclosure of the de la Rama et al. reference. Considering the proper characterization of such slits as explained above, the slits of the catheter of the de la Rama et al. reference cannot function as the apertures of the Ash et al. reference and modifying the Ash et al. reference to modify the apertures of the catheter of the Ash et al. reference with the slits of the catheter of the de la Rama et al. reference as such would be improper.

Additionally, in the Response to Arguments section of the Official Action, the Examiner asserts that "nothing in the references of Ash or de la Rama or within the

knowledge of those of ordinary skill in the art would suggest forming apertures to be eye-shaped would render the reference of Ash unsuitable for its intended purpose of facilitating fluid intake." The Examiner's assertion is traversed. Specifically, in use, the catheter of the Ash et al. reference is positioned in a body lumen for the introduction or removal of fluids through a plurality of apertures provided in the catheter. The slits of the catheter of the de la Rama et al. reference cannot function to provide fluid to the internal lumen of the catheter when the catheter is in an unflexed (straight) configuration because the slits are closed so the catheter can withstand the torque applied during use. See Figure 2 of the de la Rama reference. Modifying the flow providing apertures of the catheter of the Ash et al. reference based on the structure of the slits of the catheter of the de la Rama et al. reference would result in a catheter having a configuration where the flow providing apertures are closed when the catheter is in an unflexed (straight) configuration. Clearly, such structure would destroy the intended functionality of the catheter of the Ash et al. reference from the perspective of one of ordinary skill in the art as a catheter for delivering and removing fluids. For at least this reason, combining the Ash et al. reference with the de la Rama et al. reference would be improper.

Accordingly, it is submitted that presently pending claims 1, 3, 7, 8, 10, and 13 are currently in condition for allowance, a notice of which is earnestly solicited. If the Examiner finds any issue remaining after consideration of this response, the Examiner is invited to contact the undersigned, at the Examiner's convenience, in order to expedite any remaining prosecution.

Respectfully Submitted,

Dated: 27 JULY 2010 By: _____

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